



**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 1 -- Catchment Information**

Subwatershed: Bear Branch

Location of Catchment Centroid on ADC Map: Year: 2001 Page: 4 Grid: E5

State Plane Coordinates of Outfall Location: X: 1350845 Y: 518060

Closest Road Intersection to Outfall: Marymont Drive

Outfall SDI ID or Outfall Description: 54582, Contract No. 87112A

Objective: Demonstration / Impairment(s) (Sheet 1) Water Quality

Drainage Area (ac): 9.8 Impervious Area (ac): 6.6

Percent Impervious: 68% Soil Recharge Factor (S): 0.111

WQ<sub>v</sub> (required): 0.539 Re<sub>v</sub> (required): 0.060

Predominant Land Use: Apartments Mean Depth to Ground Water: n/a

Sanitary System:  Septic  Municipal Sewer Water Supply:  On Site Well  Public Water

**Storm Drainage System Within Catchment**

Piped: 100% Open Channels: \_\_\_\_\_

Area Drained by System: 100%

Location in Catchment:  Headwaters  Middle  Lower  All

Open Channel Lining- Vegetation: \_\_\_\_\_ Riprap: \_\_\_\_\_ Concrete: \_\_\_\_\_ Other: \_\_\_\_\_

**Existing IMP(s) / BMP(s)**

SDI ID: 85127A Type (number from Sheets 4 & 5): 16 Age: 17

Closest Road Intersection to IMP / BMP: Laurel PI & Cherry La

Catchment Area Treated (ac) : 8.32 Percentage Catchment Treated: 85%

WQ<sub>v</sub> Provided:  YES  NO Re<sub>v</sub> Provided:  YES  NO C<sub>p</sub> Provided:  YES  NO

SDI ID: \_\_\_\_\_ Type (number from Sheets 4 & 5): \_\_\_\_\_ Age: \_\_\_\_\_

Closest Road Intersection to IMP / BMP: \_\_\_\_\_

Catchment Area Treated (ac) : \_\_\_\_\_ Percentage Catchment Treated: \_\_\_\_\_

WQ<sub>v</sub> Provided:  YES  NO Re<sub>v</sub> Provided:  YES  NO C<sub>p</sub> Provided:  YES  NO

SDI ID: \_\_\_\_\_ Type (number from Sheets 4 & 5): \_\_\_\_\_ Age: \_\_\_\_\_

Closest Road Intersection to IMP / BMP: \_\_\_\_\_

Catchment Area Treated (ac) : \_\_\_\_\_ Percentage Catchment Treated: \_\_\_\_\_

WQ<sub>v</sub> Provided:  YES  NO Re<sub>v</sub> Provided:  YES  NO C<sub>p</sub> Provided:  YES  NO

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 1 -- Catchment Information (concluded)**

<b>CATCHMENT SUMMARY</b>			
WQ <sub>v</sub> (provided):	<u>0.47</u>	Re <sub>v</sub> (provided) :	<u>0.06</u>
Area Treated (ac):	<u>8.32</u>	Impervious Area Treated (ac):	<u>5.83</u>
Area Treated (%):	<u>85%</u>	Impervious Area Treated (%):	<u>88%</u>

**Comments**

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## UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS) FORM 2 -- Site Information

Site Name: Marymont Apartments Address: Mulberry Street  
 Site Owner: Equity Residential Properties  
 State Plane Coordinates of Site Centroid: X: 1350845 Y: 518060 Date: 5/20/03  
 Personnel: PM Weather: sunny, 70F deg  
 Area (ac): 9.8 Impervious Area (ac): 6.6  
 Percent Impervious: 68% Soil Recharge Factor (S): 0.111  
 WQ<sub>v</sub> (required): 0.539 Re<sub>v</sub> (required): 0.06  
 Property Area (ac): 9.8 Property Area Included in Site: 100%  
 Amount of Catchment Occupied by Site: 100%

### Storm Drainage System Within Site

Piped: 100% Open Channels: 0% Area Drained by System: 100%  
 Open Channel Lining - Vegetation: 0% Riprap: 0% Concrete: 0% Other: 0%

### Existing IMP(s) / BMP(s) (Identified on Page 1, FORM 1, Catchment Information)

SDI ID: \_\_\_\_\_ Condition:  Excellent  Good  Average  Fair  Poor  
 SDI ID: \_\_\_\_\_ Condition:  Excellent  Good  Average  Fair  Poor  
 SDI ID: \_\_\_\_\_ Condition:  Excellent  Good  Average  Fair  Poor

### Site Information

Type of Pavement:  Bituminous  Concrete  Gravel  Grid Pavers  Other \_\_\_\_\_  
 Pavement Condition:  Excellent  Good  Average  Fair  Poor  
 Underdrains can be easily directed to existing storm drains or daylighted:  YES  NO  
 Gutter/Exterior Downspouts Present:  YES  NO  
 Roof Connected Directly to Storm Drain:  YES  NO  
 Roof Drains onto Impervious Surface:  YES  NO  
 Obvious Existing Drainage Problems:  Extensive  Moderate  Average  Limited  None  
 Steep Slopes Present:  Extensive  Moderate  Average  Limited  None  
 Existing Landscaping:  Extensive  Moderate  Average  Limited  None  
 Mature / Specimen Trees:  Extensive  Moderate  Average  Limited  None  
 Area Available for Aboveground BMPs:  Extensive  Moderate  Average  Limited  None  
 Existing Cover of Potential Aboveground BMP Locations:  Grass  Landscaped  Gravel  Other Pervious  
 Pavement  Other Impervious

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 2 -- Site Information (concluded)**

**Commercial / Institutional**

Islands Present:  YES  NO

Curb Present Around Island:  YES  NO

Ground Level of Island Relative to Pavement:  Above  Equal  Below

Island Landscaping:  Impervious  Bare Earth  Gravel  Grass  Mulch  Herbaceous Plants  Shrubs  
 Trees (<2 in. DBH)  Trees (2 - 6 in. DBH)  Trees (>6 in. DBH)

Trees have sufficient spacing to allow IMPs  YES  NO

Parking area that can be directed to potential treatment area with little grading: 100%

SITE SUMMARY			
WQ <sub>v</sub> (provided) :	<u>0.47</u>	Re <sub>v</sub> (provided):	<u>0.06</u>
Area Treated (ac) :	<u>8.32</u>	Impervious Area Treated (ac):	<u>5.83</u>
Area Treated (%) :	<u>85</u>	Impervious Area Treated (%):	<u>88</u>

**Photographs**

No. <u>850</u>	Description: <u>looking east along southern (front) portion of property</u>
No. <u>851</u>	Description: <u>looking north along west portion of property</u>
No. <u>852</u>	Description: <u>looking north along east portion of property</u>
No. <u>853</u>	Description: <u>looking west along south (front) portion of property</u>
No. <u>854</u>	Description: <u>looking south between eastern-most buildings</u>
No. <u>855</u>	Description: <u>looking west along north side of property</u>
No. <u>856</u>	Description: <u>typical building with downspouts</u>
No. <u>857</u>	Description: <u>typical retaining wall</u>
No. <u>858</u>	Description: <u>looking south along west portion of property</u>
No. <u>859</u>	Description: <u>looking east along north side of property</u>
No. <u>860</u>	Description: <u>brick retaining wall on north side of property</u>

**Comments** Complex has 14 separate buildings. Parking spots cannot be used for BMPs, there is no excess parking. Site is steep with timber retaining walls throughout property. A brick retaining wall is along the north side of property. There is very little open area that is only grass or shrubs.

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 2 -- Site Information**



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**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 2 -- Site Information (concluded)**



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**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**

New LID IMP  SWM BMP Retrofit  New SWM BMP  Type (Sheets 4 & 5): 5

State Plane Coordinates of IMP / BMP Centroid: X: \_\_\_\_\_ Y: \_\_\_\_\_

Sketch Location of Footprint (with Approximate Dimensions) and Drainage Boundary on Site Map

Identify all Impairments Addressed by Recommendation (Sheet 1): 1, 7, 16

Treatment Area Ownership:  Transportation ROW  Utility ROW  County  Other Government  Private  
 Other \_\_\_\_\_

Infrastructure / Structures / Buildings Impacted:  YES  NO

Limited Impact to Adjacent Properties:  YES  NO

Area Accessible for Construction:  YES  NO

Area Accessible for Maintenance:  YES  NO

Limited Permitting Issues:  YES  NO

Jurisdictional Wetlands Impacted:  YES  NO

Forest Retention Area Impacted:  YES  NO

Conservation Easement Impacted:  YES  NO

Utilities Present:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Utilities Impacted:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Impacted Utilities:  Above Gound  Underground

Critical Area Impacted:  YES  NO

Mature / Specimen Trees Impacted:  YES  NO

Existing Landscaping Impacted:  YES  NO

Underdrain Needed:  YES  NO

Underdrains Can Discharge:  YES  NO

Soils are Suitable:  YES  NO

Ground Water Table Level Suitable:  YES  NO

Estimate IMP / BMP drainage area included on site: 2.53 ac 100%

**Retrofit of Existing SWM BMP**

SDI ID: \_\_\_\_\_

Add Forebay:  YES  NO

Modify Outlet Structure:  YES  NO

Add Aquatic Bench:  YES  NO

Grade Bottom of Facility:  YES  NO

Plant Native Vegetation:  YES  NO

Provide Additional Storage Volume:  YES  NO

Excavation / Raise the Embankment:  YES  NO



**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**



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## UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS) FORM 3 -- Opportunities and Constraints of Potential Management Practice

New LID IMP  SWM BMP Retrofit  New SWM BMP  Type (Sheets 4 & 5): 45

State Plane Coordinates of IMP / BMP Centroid: X: \_\_\_\_\_ Y: \_\_\_\_\_

Sketch Location of Footprint (with Approximate Dimensions) and Drainage Boundary on Site Map

Identify all Impairments Addressed by Recommendation (Sheet 1): 1, 7, 16

Treatment Area Ownership:  Transportation ROW  Utility ROW  County  Other Government  Private  
 Other \_\_\_\_\_

Infrastructure / Structures / Buildings Impacted:  YES  NO

Limited Impact to Adjacent Properties:  YES  NO

Area Accessible for Construction:  YES  NO

Area Accessible for Maintenance:  YES  NO

Limited Permitting Issues:  YES  NO

Jurisdictional Wetlands Impacted:  YES  NO

Forest Retention Area Impacted:  YES  NO

Conservation Easement Impacted:  YES  NO

Utilities Present:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Utilities Impacted:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Impacted Utilities:  Above Gound  Underground

Critical Area Impacted:  YES  NO

Mature / Specimen Trees Impacted:  YES  NO

Existing Landscaping Impacted:  YES  NO

Underdrain Needed:  YES  NO

Underdrains Can Discharge:  YES  NO

Soils are Suitable:  YES  NO

Ground Water Table Level Suitable:  YES  NO

Estimate IMP / BMP drainage area included on site: 2.53 ac 100%

### Retrofit of Existing SWM BMP

SDI ID: \_\_\_\_\_

Add Forebay:  YES  NO

Modify Outlet Structure:  YES  NO

Add Aquatic Bench:  YES  NO

Grade Bottom of Facility:  YES  NO

Plant Native Vegetation:  YES  NO

Provide Additional Storage Volume:  YES  NO

Excavation / Raise the Embankment:  YES  NO



**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**



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## UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS) FORM 3 -- Opportunities and Constraints of Potential Management Practice

New LID IMP  SWM BMP Retrofit  New SWM BMP  Type (Sheets 4 & 5): 40

State Plane Coordinates of IMP / BMP Centroid: X: \_\_\_\_\_ Y: \_\_\_\_\_

Sketch Location of Footprint (with Approximate Dimensions) and Drainage Boundary on Site Map

Identify all Impairments Addressed by Recommendation (Sheet 1): \_\_\_\_\_

Treatment Area Ownership:  Transportation ROW  Utility ROW  County  Other Government  Private  
 Other \_\_\_\_\_

Infrastructure / Structures / Buildings Impacted:  YES  NO

Limited Impact to Adjacent Properties:  YES  NO

Area Accessible for Construction:  YES  NO

Area Accessible for Maintenance:  YES  NO

Limited Permitting Issues:  YES  NO

Jurisdictional Wetlands Impacted:  YES  NO

Forest Retention Area Impacted:  YES  NO

Conservation Easement Impacted:  YES  NO

Utilities Present:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Utilities Impacted:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Impacted Utilities:  Above Gound  Underground

Critical Area Impacted:  YES  NO

Mature / Specimen Trees Impacted:  YES  NO

Existing Landscaping Impacted:  YES  NO

Underdrain Needed:  YES  NO

Underdrains Can Discharge:  YES  NO

Soils are Suitable:  YES  NO

Ground Water Table Level Suitable:  YES  NO

Estimate IMP / BMP drainage area included on site: \_\_\_\_\_ ac 100%

### Retrofit of Existing SWM BMP

SDI ID: \_\_\_\_\_

Add Forebay:  YES  NO

Modify Outlet Structure:  YES  NO

Add Aquatic Bench:  YES  NO

Grade Bottom of Facility:  YES  NO

Plant Native Vegetation:  YES  NO

Provide Additional Storage Volume:  YES  NO

Excavation / Raise the Embankment:  YES  NO

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice (concluded)**

<b>IMP / BMP SUMMARY</b>			
WQ <sub>v</sub> (provided):	<u>0.020</u>	Re <sub>v</sub> (provided):	<u>0.003</u>
Area Treated (ac):	<u>0.37</u>	Impervious Area Treated (ac):	<u>0.24</u>

**Photographs**

No. <u>876</u>	Description: <u>looking north</u>
No. <u>870</u>	Description: <u>looking south</u>
No. _____	Description: _____

**Comments**

IMP Size = 2,467 sq ft

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**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**



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## UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS) FORM 3 -- Opportunities and Constraints of Potential Management Practice

New LID IMP  SWM BMP Retrofit  New SWM BMP  Type (Sheets 4 & 5): 39

State Plane Coordinates of IMP / BMP Centroid: X: \_\_\_\_\_ Y: \_\_\_\_\_

Sketch Location of Footprint (with Approximate Dimensions) and Drainage Boundary on Site Map

Identify all Impairments Addressed by Recommendation (Sheet 1): 1, 2, 3, 4, 7, 16

Treatment Area Ownership:  Transportation ROW  Utility ROW  County  Other Government  Private  
 Other \_\_\_\_\_

Infrastructure / Structures / Buildings Impacted:  YES  NO

Limited Impact to Adjacent Properties:  YES  NO

Area Accessible for Construction:  YES  NO

Area Accessible for Maintenance:  YES  NO

Limited Permitting Issues:  YES  NO

Jurisdictional Wetlands Impacted:  YES  NO

Forest Retention Area Impacted:  YES  NO

Conservation Easement Impacted:  YES  NO

Utilities Present:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Utilities Impacted:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Impacted Utilities:  Above Gound  Underground

Critical Area Impacted:  YES  NO

Mature / Specimen Trees Impacted:  YES  NO

Existing Landscaping Impacted:  YES  NO

Underdrain Needed:  YES  NO

Underdrains Can Discharge:  YES  NO

Soils are Suitable:  YES  NO

Ground Water Table Level Suitable:  YES  NO

Estimate IMP / BMP drainage area included on site: 0.04 ac 100%

### Retrofit of Existing SWM BMP

SDI ID: \_\_\_\_\_

Add Forebay:  YES  NO

Modify Outlet Structure:  YES  NO

Add Aquatic Bench:  YES  NO

Grade Bottom of Facility:  YES  NO

Plant Native Vegetation:  YES  NO

Provide Additional Storage Volume:  YES  NO

Excavation / Raise the Embankment:  YES  NO

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice (concluded)**

<b>IMP / BMP SUMMARY</b>			
WQ <sub>v</sub> (provided):	<u>0.003</u>	Re <sub>v</sub> (provided):	<u>0.001</u>
Area Treated (ac):	<u>0.04</u>	Impervious Area Treated (ac):	<u>0.03</u>

**Photographs**

No. <u>875</u>	Description: <u>looking south</u>
No. _____	Description: _____

**Comments** IMP treats 38% of the drainage area  
IMP size = 237 sq ft  
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**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**



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## UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS) FORM 3 -- Opportunities and Constraints of Potential Management Practice

New LID IMP  SWM BMP Retrofit  New SWM BMP  Type (Sheets 4 & 5): 39

State Plane Coordinates of IMP / BMP Centroid: X: \_\_\_\_\_ Y: \_\_\_\_\_

Sketch Location of Footprint (with Approximate Dimensions) and Drainage Boundary on Site Map

Identify all Impairments Addressed by Recommendation (Sheet 1): 1, 2, 3, 4, 7, 16

Treatment Area Ownership:  Transportation ROW  Utility ROW  County  Other Government  Private  
 Other \_\_\_\_\_

Infrastructure / Structures / Buildings Impacted:  YES  NO

Limited Impact to Adjacent Properties:  YES  NO

Area Accessible for Construction:  YES  NO

Area Accessible for Maintenance:  YES  NO

Limited Permitting Issues:  YES  NO

Jurisdictional Wetlands Impacted:  YES  NO

Forest Retention Area Impacted:  YES  NO

Conservation Easement Impacted:  YES  NO

Utilities Present:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Utilities Impacted:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Impacted Utilities:  Above Gound  Underground

Critical Area Impacted:  YES  NO

Mature / Specimen Trees Impacted:  YES  NO

Existing Landscaping Impacted:  YES  NO

Underdrain Needed:  YES  NO

Underdrains Can Discharge:  YES  NO

Soils are Suitable:  YES  NO

Ground Water Table Level Suitable:  YES  NO

Estimate IMP / BMP drainage area included on site: 0.04 ac 100%

### Retrofit of Existing SWM BMP

SDI ID: \_\_\_\_\_

Add Forebay:  YES  NO

Modify Outlet Structure:  YES  NO

Add Aquatic Bench:  YES  NO

Grade Bottom of Facility:  YES  NO

Plant Native Vegetation:  YES  NO

Provide Additional Storage Volume:  YES  NO

Excavation / Raise the Embankment:  YES  NO



**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**



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**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**

New LID IMP  SWM BMP Retrofit  New SWM BMP  Type (Sheets 4 & 5): 39

State Plane Coordinates of IMP / BMP Centroid: X: \_\_\_\_\_ Y: \_\_\_\_\_

Sketch Location of Footprint (with Approximate Dimensions) and Drainage Boundary on Site Map

Identify all Impairments Addressed by Recommendation (Sheet 1): 1, 2, 3, 4, 7, 16

Treatment Area Ownership:  Transportation ROW  Utility ROW  County  Other Government  Private  
 Other \_\_\_\_\_

Infrastructure / Structures / Buildings Impacted:  YES  NO

Limited Impact to Adjacent Properties:  YES  NO

Area Accessible for Construction:  YES  NO

Area Accessible for Maintenance:  YES  NO

Limited Permitting Issues:  YES  NO

Jurisdictional Wetlands Impacted:  YES  NO

Forest Retention Area Impacted:  YES  NO

Conservation Easement Impacted:  YES  NO

Utilities Present:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Utilities Impacted:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Impacted Utilities:  Above Gound  Underground

Critical Area Impacted:  YES  NO

Mature / Specimen Trees Impacted:  YES  NO

Existing Landscaping Impacted:  YES  NO

Underdrain Needed:  YES  NO

Underdrains Can Discharge:  YES  NO

Soils are Suitable:  YES  NO

Ground Water Table Level Suitable:  YES  NO

Estimate IMP / BMP drainage area included on site: \_\_\_\_\_ ac 100%

**Retrofit of Existing SWM BMP**

SDI ID: \_\_\_\_\_

Add Forebay:  YES  NO

Modify Outlet Structure:  YES  NO

Add Aquatic Bench:  YES  NO

Grade Bottom of Facility:  YES  NO

Plant Native Vegetation:  YES  NO

Provide Additional Storage Volume:  YES  NO

Excavation / Raise the Embankment:  YES  NO

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice (concluded)**

<b>IMP / BMP SUMMARY</b>			
WQ <sub>v</sub> (provided):	<u>0.003</u>	Re <sub>v</sub> (provided):	<u>0.001</u>
Area Treated (ac):	<u>0.04</u>	Impervious Area Treated (ac):	<u>0.03</u>

**Photographs**

No. <u>873</u>	Description: <u>looking south</u>
No. _____	Description: _____

**Comments** IMP treats 55% of the drainage area  
IMP size = 226 sq ft  
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**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**



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## UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS) FORM 3 -- Opportunities and Constraints of Potential Management Practice

New LID IMP  SWM BMP Retrofit  New SWM BMP  Type (Sheets 4 & 5): 39

State Plane Coordinates of IMP / BMP Centroid: X: \_\_\_\_\_ Y: \_\_\_\_\_

Sketch Location of Footprint (with Approximate Dimensions) and Drainage Boundary on Site Map

Identify all Impairments Addressed by Recommendation (Sheet 1): 1, 2, 3, 4, 7, 16

Treatment Area Ownership:  Transportation ROW  Utility ROW  County  Other Government  Private  
 Other \_\_\_\_\_

Infrastructure / Structures / Buildings Impacted:  YES  NO

Limited Impact to Adjacent Properties:  YES  NO

Area Accessible for Construction:  YES  NO

Area Accessible for Maintenance:  YES  NO

Limited Permitting Issues:  YES  NO

Jurisdictional Wetlands Impacted:  YES  NO

Forest Retention Area Impacted:  YES  NO

Conservation Easement Impacted:  YES  NO

Utilities Present:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Utilities Impacted:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Impacted Utilities:  Above Gound  Underground

Critical Area Impacted:  YES  NO

Mature / Specimen Trees Impacted:  YES  NO

Existing Landscaping Impacted:  YES  NO

Underdrain Needed:  YES  NO

Underdrains Can Discharge:  YES  NO

Soils are Suitable:  YES  NO

Ground Water Table Level Suitable:  YES  NO

Estimate IMP / BMP drainage area included on site: \_\_\_\_\_ ac 100%

### Retrofit of Existing SWM BMP

SDI ID: \_\_\_\_\_

Add Forebay:  YES  NO

Modify Outlet Structure:  YES  NO

Add Aquatic Bench:  YES  NO

Grade Bottom of Facility:  YES  NO

Plant Native Vegetation:  YES  NO

Provide Additional Storage Volume:  YES  NO

Excavation / Raise the Embankment:  YES  NO

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice (concluded)**

<b>IMP / BMP SUMMARY</b>			
WQ <sub>v</sub> (provided):	<u>0.018</u>	Re <sub>v</sub> (provided):	<u>0.002</u>
Area Treated (ac):	<u>0.37</u>	Impervious Area Treated (ac):	<u>0.22</u>

**Photographs**

No. <u>871</u>	Description: <u>looking south</u>
No. <u>872</u>	Description: <u>looking north</u>
No. _____	Description: _____

**Comments**

IMP size = 1,642 sq ft

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**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**



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**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**

New LID IMP  SWM BMP Retrofit  New SWM BMP  Type (Sheets 4 & 5): 39

State Plane Coordinates of IMP / BMP Centroid: X: \_\_\_\_\_ Y: \_\_\_\_\_

Sketch Location of Footprint (with Approximate Dimensions) and Drainage Boundary on Site Map

Identify all Impairments Addressed by Recommendation (Sheet 1): 1, 2, 3, 4, 7, 16

Treatment Area Ownership:  Transportation ROW  Utility ROW  County  Other Government  Private  
 Other \_\_\_\_\_

Infrastructure / Structures / Buildings Impacted:  YES  NO

Limited Impact to Adjacent Properties:  YES  NO

Area Accessible for Construction:  YES  NO

Area Accessible for Maintenance:  YES  NO

Limited Permitting Issues:  YES  NO

Jurisdictional Wetlands Impacted:  YES  NO

Forest Retention Area Impacted:  YES  NO

Conservation Easement Impacted:  YES  NO

Utilities Present:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Utilities Impacted:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Impacted Utilities:  Above Gound  Underground

Critical Area Impacted:  YES  NO

Mature / Specimen Trees Impacted:  YES  NO

Existing Landscaping Impacted:  YES  NO

Underdrain Needed:  YES  NO

Underdrains Can Discharge:  YES  NO

Soils are Suitable:  YES  NO

Ground Water Table Level Suitable:  YES  NO

Estimate IMP / BMP drainage area included on site: 0.18 ac 100%

**Retrofit of Existing SWM BMP**

SDI ID: \_\_\_\_\_

Add Forebay:  YES  NO

Modify Outlet Structure:  YES  NO

Add Aquatic Bench:  YES  NO

Grade Bottom of Facility:  YES  NO

Plant Native Vegetation:  YES  NO

Provide Additional Storage Volume:  YES  NO

Excavation / Raise the Embankment:  YES  NO

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice (concluded)**

<b>IMP / BMP SUMMARY</b>			
WQ <sub>v</sub> (provided):	<u>0.010</u>	Re <sub>v</sub> (provided):	<u>0.001</u>
Area Treated (ac):	<u>0.18</u>	Impervious Area Treated (ac):	<u>0.13</u>

**Photographs**

No. <u>877</u>	Description: <u>looking south</u>
No. <u>878</u>	Description: <u>looking north</u>
No. _____	Description: _____

**Comments** IMP treats 46% of the drainage area  
IMP size = 897 sq ft  
 \_\_\_\_\_  
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**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**



877



878

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**

New LID IMP  SWM BMP Retrofit  New SWM BMP  Type (Sheets 4 & 5): 41

State Plane Coordinates of IMP / BMP Centroid: X: \_\_\_\_\_ Y: \_\_\_\_\_

Sketch Location of Footprint (with Approximate Dimensions) and Drainage Boundary on Site Map

Identify all Impairments Addressed by Recommendation (Sheet 1): 4

Treatment Area Ownership:  Transportation ROW  Utility ROW  County  Other Government  Private  
 Other \_\_\_\_\_

Infrastructure / Structures / Buildings Impacted:  YES  NO

Limited Impact to Adjacent Properties:  YES  NO

Area Accessible for Construction:  YES  NO

Area Accessible for Maintenance:  YES  NO

Limited Permitting Issues:  YES  NO

Jurisdictional Wetlands Impacted:  YES  NO

Forest Retention Area Impacted:  YES  NO

Conservation Easement Impacted:  YES  NO

Utilities Present:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Utilities Impacted:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Impacted Utilities:  Above Gound  Underground

Critical Area Impacted:  YES  NO

Mature / Specimen Trees Impacted:  YES  NO

Existing Landscaping Impacted:  YES  NO

Underdrain Needed:  YES  NO

Underdrains Can Discharge:  YES  NO

Soils are Suitable:  YES  NO

Ground Water Table Level Suitable:  YES  NO

Estimate IMP / BMP drainage area included on site: 0.07 ac 100%

**Retrofit of Existing SWM BMP**

SDI ID: \_\_\_\_\_

Add Forebay:  YES  NO

Modify Outlet Structure:  YES  NO

Add Aquatic Bench:  YES  NO

Grade Bottom of Facility:  YES  NO

Plant Native Vegetation:  YES  NO

Provide Additional Storage Volume:  YES  NO

Excavation / Raise the Embankment:  YES  NO

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice (concluded)**

<b>IMP / BMP SUMMARY</b>	
WQ <sub>v</sub> (provided): <u>0.004</u>	Re <sub>v</sub> (provided): _____
Area Treated (ac): <u>0.07</u>	Impervious Area Treated (ac): <u>0.06</u>

**Photographs**

No. <u>869</u>	Description: <u>looking southeast</u>
No. _____	Description: _____

**Comments**

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**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**



869

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**

New LID IMP  SWM BMP Retrofit  New SWM BMP  Type (Sheets 4 & 5): 39

State Plane Coordinates of IMP / BMP Centroid: X: \_\_\_\_\_ Y: \_\_\_\_\_

Sketch Location of Footprint (with Approximate Dimensions) and Drainage Boundary on Site Map

Identify all Impairments Addressed by Recommendation (Sheet 1): 1, 2, 3, 4, 7, 16

Treatment Area Ownership:  Transportation ROW  Utility ROW  County  Other Government  Private  
 Other \_\_\_\_\_

Infrastructure / Structures / Buildings Impacted:  YES  NO

Limited Impact to Adjacent Properties:  YES  NO

Area Accessible for Construction:  YES  NO

Area Accessible for Maintenance:  YES  NO

Limited Permitting Issues:  YES  NO

Jurisdictional Wetlands Impacted:  YES  NO

Forest Retention Area Impacted:  YES  NO

Conservation Easement Impacted:  YES  NO

Utilities Present:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Utilities Impacted:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Impacted Utilities:  Above Gound  Underground

Critical Area Impacted:  YES  NO

Mature / Specimen Trees Impacted:  YES  NO

Existing Landscaping Impacted:  YES  NO

Underdrain Needed:  YES  NO

Underdrains Can Discharge:  YES  NO

Soils are Suitable:  YES  NO

Ground Water Table Level Suitable:  YES  NO

Estimate IMP / BMP drainage area included on site: 0.25 ac 100%

**Retrofit of Existing SWM BMP**

SDI ID: \_\_\_\_\_

Add Forebay:  YES  NO

Modify Outlet Structure:  YES  NO

Add Aquatic Bench:  YES  NO

Grade Bottom of Facility:  YES  NO

Plant Native Vegetation:  YES  NO

Provide Additional Storage Volume:  YES  NO

Excavation / Raise the Embankment:  YES  NO

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice (concluded)**

<b>IMP / BMP SUMMARY</b>			
WQ <sub>v</sub> (provided):	<u>0.015</u>	Re <sub>v</sub> (provided):	<u>0.002</u>
Area Treated (ac):	<u>0.25</u>	Impervious Area Treated (ac):	<u>0.19</u>

**Photographs**

No. <u>868</u>	Description: <u>looking east</u>
No. _____	Description: _____

**Comments**

IMP size = 1,478 sq ft

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**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**



868

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**

New LID IMP  SWM BMP Retrofit  New SWM BMP  Type (Sheets 4 & 5): 43

State Plane Coordinates of IMP / BMP Centroid: X: \_\_\_\_\_ Y: \_\_\_\_\_

Sketch Location of Footprint (with Approximate Dimensions) and Drainage Boundary on Site Map

Identify all Impairments Addressed by Recommendation (Sheet 1): 1, 2, 3, 4, 7, 16

Treatment Area Ownership:  Transportation ROW  Utility ROW  County  Other Government  Private  
 Other \_\_\_\_\_

Infrastructure / Structures / Buildings Impacted:  YES  NO

Limited Impact to Adjacent Properties:  YES  NO

Area Accessible for Construction:  YES  NO

Area Accessible for Maintenance:  YES  NO

Limited Permitting Issues:  YES  NO

Jurisdictional Wetlands Impacted:  YES  NO

Forest Retention Area Impacted:  YES  NO

Conservation Easement Impacted:  YES  NO

Utilities Present:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Utilities Impacted:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Impacted Utilities:  Above Gound  Underground

Critical Area Impacted:  YES  NO

Mature / Specimen Trees Impacted:  YES  NO

Existing Landscaping Impacted:  YES  NO

Underdrain Needed:  YES  NO

Underdrains Can Discharge:  YES  NO

Soils are Suitable:  YES  NO

Ground Water Table Level Suitable:  YES  NO

Estimate IMP / BMP drainage area included on site: \_\_\_\_\_ ac 95%

**Retrofit of Existing SWM BMP**

SDI ID: \_\_\_\_\_

Add Forebay:  YES  NO

Modify Outlet Structure:  YES  NO

Add Aquatic Bench:  YES  NO

Grade Bottom of Facility:  YES  NO

Plant Native Vegetation:  YES  NO

Provide Additional Storage Volume:  YES  NO

Excavation / Raise the Embankment:  YES  NO

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice (concluded)**

<b>IMP / BMP SUMMARY</b>			
WQ <sub>v</sub> (provided):	<u>0.060</u>	Re <sub>v</sub> (provided):	<u>0.007</u>
Area Treated (ac):	<u>1.15</u>	Impervious Area Treated (ac):	<u>0.73</u>

**Photographs**

No. <u>887</u>	Description: <u>looking east</u>
No. <u>888</u>	Description: <u>looking west</u>
No. <u>889</u>	Description: <u>looking south</u>
No. _____	Description: _____

**Comments**

IMP size = 5,570 sq ft

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**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**



887



888



889

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**

New LID IMP  SWM BMP Retrofit  New SWM BMP  Type (Sheets 4 & 5): 41

State Plane Coordinates of IMP / BMP Centroid: X: \_\_\_\_\_ Y: \_\_\_\_\_

Sketch Location of Footprint (with Approximate Dimensions) and Drainage Boundary on Site Map

Identify all Impairments Addressed by Recommendation (Sheet 1): 4

Treatment Area Ownership:  Transportation ROW  Utility ROW  County  Other Government  Private  
 Other \_\_\_\_\_

Infrastructure / Structures / Buildings Impacted:  YES  NO

Limited Impact to Adjacent Properties:  YES  NO

Area Accessible for Construction:  YES  NO

Area Accessible for Maintenance:  YES  NO

Limited Permitting Issues:  YES  NO

Jurisdictional Wetlands Impacted:  YES  NO

Forest Retention Area Impacted:  YES  NO

Conservation Easement Impacted:  YES  NO

Utilities Present:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Utilities Impacted:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Impacted Utilities:  Above Gound  Underground

Critical Area Impacted:  YES  NO

Mature / Specimen Trees Impacted:  YES  NO

Existing Landscaping Impacted:  YES  NO

Underdrain Needed:  YES  NO

Underdrains Can Discharge:  YES  NO

Soils are Suitable:  YES  NO

Ground Water Table Level Suitable:  YES  NO

Estimate IMP / BMP drainage area included on site: 1.07 ac 100%

**Retrofit of Existing SWM BMP**

SDI ID: \_\_\_\_\_

Add Forebay:  YES  NO

Modify Outlet Structure:  YES  NO

Add Aquatic Bench:  YES  NO

Grade Bottom of Facility:  YES  NO

Plant Native Vegetation:  YES  NO

Provide Additional Storage Volume:  YES  NO

Excavation / Raise the Embankment:  YES  NO

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice (concluded)**

<b>IMP / BMP SUMMARY</b>			
WQ <sub>v</sub> (provided):	<u>0.067</u>	Re <sub>v</sub> (provided):	<u>0.000</u>
Area Treated (ac):	<u>1.07</u>	Impervious Area Treated (ac):	<u>0.82</u>

**Photographs**

No. <u>879</u>	Description: <u>looking southwest</u>
No. _____	Description: _____

**Comments**

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**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**



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**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**

New LID IMP  SWM BMP Retrofit  New SWM BMP  Type (Sheets 4 & 5): 41

State Plane Coordinates of IMP / BMP Centroid: X: \_\_\_\_\_ Y: \_\_\_\_\_

Sketch Location of Footprint (with Approximate Dimensions) and Drainage Boundary on Site Map

Identify all Impairments Addressed by Recommendation (Sheet 1): 4

Treatment Area Ownership:  Transportation ROW  Utility ROW  County  Other Government  Private  
 Other \_\_\_\_\_

Infrastructure / Structures / Buildings Impacted:  YES  NO

Limited Impact to Adjacent Properties:  YES  NO

Area Accessible for Construction:  YES  NO

Area Accessible for Maintenance:  YES  NO

Limited Permitting Issues:  YES  NO

Jurisdictional Wetlands Impacted:  YES  NO

Forest Retention Area Impacted:  YES  NO

Conservation Easement Impacted:  YES  NO

Utilities Present:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Utilities Impacted:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Impacted Utilities:  Above Gound  Underground

Critical Area Impacted:  YES  NO

Mature / Specimen Trees Impacted:  YES  NO

Existing Landscaping Impacted:  YES  NO

Underdrain Needed:  YES  NO

Underdrains Can Discharge:  YES  NO

Soils are Suitable:  YES  NO

Ground Water Table Level Suitable:  YES  NO

Estimate IMP / BMP drainage area included on site: 1.00 ac 100%

**Retrofit of Existing SWM BMP**

SDI ID: \_\_\_\_\_

Add Forebay:  YES  NO

Modify Outlet Structure:  YES  NO

Add Aquatic Bench:  YES  NO

Grade Bottom of Facility:  YES  NO

Plant Native Vegetation:  YES  NO

Provide Additional Storage Volume:  YES  NO

Excavation / Raise the Embankment:  YES  NO



**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**



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**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**

New LID IMP  SWM BMP Retrofit  New SWM BMP  Type (Sheets 4 & 5): 41

State Plane Coordinates of IMP / BMP Centroid: X: \_\_\_\_\_ Y: \_\_\_\_\_

Sketch Location of Footprint (with Approximate Dimensions) and Drainage Boundary on Site Map

Identify all Impairments Addressed by Recommendation (Sheet 1): 4

Treatment Area Ownership:  Transportation ROW  Utility ROW  County  Other Government  Private  
 Other \_\_\_\_\_

Infrastructure / Structures / Buildings Impacted:  YES  NO

Limited Impact to Adjacent Properties:  YES  NO

Area Accessible for Construction:  YES  NO

Area Accessible for Maintenance:  YES  NO

Limited Permitting Issues:  YES  NO

Jurisdictional Wetlands Impacted:  YES  NO

Forest Retention Area Impacted:  YES  NO

Conservation Easement Impacted:  YES  NO

Utilities Present:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Utilities Impacted:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Impacted Utilities:  Above Gound  Underground

Critical Area Impacted:  YES  NO

Mature / Specimen Trees Impacted:  YES  NO

Existing Landscaping Impacted:  YES  NO

Underdrain Needed:  YES  NO

Underdrains Can Discharge:  YES  NO

Soils are Suitable:  YES  NO

Ground Water Table Level Suitable:  YES  NO

Estimate IMP / BMP drainage area included on site: 0.46 ac 100%

**Retrofit of Existing SWM BMP**

SDI ID: \_\_\_\_\_

Add Forebay:  YES  NO

Modify Outlet Structure:  YES  NO

Add Aquatic Bench:  YES  NO

Grade Bottom of Facility:  YES  NO

Plant Native Vegetation:  YES  NO

Provide Additional Storage Volume:  YES  NO

Excavation / Raise the Embankment:  YES  NO

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice (concluded)**

<b>IMP / BMP SUMMARY</b>			
WQ <sub>v</sub> (provided):	<u>0.027</u>	Re <sub>v</sub> (provided):	<u>0.000</u>
Area Treated (ac):	<u>0.46</u>	Impervious Area Treated (ac):	<u>0.34</u>

**Photographs**

No. <u>881</u>	Description: <u>looking southwest</u>
No. _____	Description: _____

**Comments**

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**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**



881

## UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS) FORM 3 -- Opportunities and Constraints of Potential Management Practice

New LID IMP  SWM BMP Retrofit  New SWM BMP  Type (Sheets 4 & 5): 41

State Plane Coordinates of IMP / BMP Centroid: X: \_\_\_\_\_ Y: \_\_\_\_\_

Sketch Location of Footprint (with Approximate Dimensions) and Drainage Boundary on Site Map

Identify all Impairments Addressed by Recommendation (Sheet 1): 4

Treatment Area Ownership:  Transportation ROW  Utility ROW  County  Other Government  Private  
 Other \_\_\_\_\_

Infrastructure / Structures / Buildings Impacted:  YES  NO

Limited Impact to Adjacent Properties:  YES  NO

Area Accessible for Construction:  YES  NO

Area Accessible for Maintenance:  YES  NO

Limited Permitting Issues:  YES  NO

Jurisdictional Wetlands Impacted:  YES  NO

Forest Retention Area Impacted:  YES  NO

Conservation Easement Impacted:  YES  NO

Utilities Present:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Utilities Impacted:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Impacted Utilities:  Above Gound  Underground

Critical Area Impacted:  YES  NO

Mature / Specimen Trees Impacted:  YES  NO

Existing Landscaping Impacted:  YES  NO

Underdrain Needed:  YES  NO

Underdrains Can Discharge:  YES  NO

Soils are Suitable:  YES  NO

Ground Water Table Level Suitable:  YES  NO

Estimate IMP / BMP drainage area included on site: 0.42 ac 100%

### Retrofit of Existing SWM BMP

SDI ID: \_\_\_\_\_

Add Forebay:  YES  NO

Modify Outlet Structure:  YES  NO

Add Aquatic Bench:  YES  NO

Grade Bottom of Facility:  YES  NO

Plant Native Vegetation:  YES  NO

Provide Additional Storage Volume:  YES  NO

Excavation / Raise the Embankment:  YES  NO

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice (concluded)**

<b>IMP / BMP SUMMARY</b>			
WQ <sub>v</sub> (provided):	<u>0.023</u>	Re <sub>v</sub> (provided):	<u>0.000</u>
Area Treated (ac):	<u>0.42</u>	Impervious Area Treated (ac):	<u>0.29</u>

**Photographs**

No. <u>882</u>	Description: <u>looking southeast</u>
No. _____	Description: _____

**Comments**

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**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**



882

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**

New LID IMP  SWM BMP Retrofit  New SWM BMP  Type (Sheets 4 & 5): 43

State Plane Coordinates of IMP / BMP Centroid: X: \_\_\_\_\_ Y: \_\_\_\_\_

Sketch Location of Footprint (with Approximate Dimensions) and Drainage Boundary on Site Map

Identify all Impairments Addressed by Recommendation (Sheet 1): 1, 2, 3, 4, 7, 16

Treatment Area Ownership:  Transportation ROW  Utility ROW  County  Other Government  Private  
 Other \_\_\_\_\_

Infrastructure / Structures / Buildings Impacted:  YES  NO

Limited Impact to Adjacent Properties:  YES  NO

Area Accessible for Construction:  YES  NO

Area Accessible for Maintenance:  YES  NO

Limited Permitting Issues:  YES  NO

Jurisdictional Wetlands Impacted:  YES  NO

Forest Retention Area Impacted:  YES  NO

Conservation Easement Impacted:  YES  NO

Utilities Present:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Utilities Impacted:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Impacted Utilities:  Above Gound  Underground

Critical Area Impacted:  YES  NO

Mature / Specimen Trees Impacted:  YES  NO

Existing Landscaping Impacted:  YES  NO

Underdrain Needed:  YES  NO

Underdrains Can Discharge:  YES  NO

Soils are Suitable:  YES  NO

Ground Water Table Level Suitable:  YES  NO

Estimate IMP / BMP drainage area included on site: 0.43 ac 100%

**Retrofit of Existing SWM BMP**

SDI ID: \_\_\_\_\_

Add Forebay:  YES  NO

Modify Outlet Structure:  YES  NO

Add Aquatic Bench:  YES  NO

Grade Bottom of Facility:  YES  NO

Plant Native Vegetation:  YES  NO

Provide Additional Storage Volume:  YES  NO

Excavation / Raise the Embankment:  YES  NO



**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**



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**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**

New LID IMP  SWM BMP Retrofit  New SWM BMP  Type (Sheets 4 & 5): 43

State Plane Coordinates of IMP / BMP Centroid: X: \_\_\_\_\_ Y: \_\_\_\_\_

Sketch Location of Footprint (with Approximate Dimensions) and Drainage Boundary on Site Map

Identify all Impairments Addressed by Recommendation (Sheet 1): 1, 2, 3, 4, 7, 16

Treatment Area Ownership:  Transportation ROW  Utility ROW  County  Other Government  Private  
 Other \_\_\_\_\_

Infrastructure / Structures / Buildings Impacted:  YES  NO

Limited Impact to Adjacent Properties:  YES  NO

Area Accessible for Construction:  YES  NO

Area Accessible for Maintenance:  YES  NO

Limited Permitting Issues:  YES  NO

Jurisdictional Wetlands Impacted:  YES  NO

Forest Retention Area Impacted:  YES  NO

Conservation Easement Impacted:  YES  NO

Utilities Present:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Utilities Impacted:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Impacted Utilities:  Above Gound  Underground

Critical Area Impacted:  YES  NO

Mature / Specimen Trees Impacted:  YES  NO

Existing Landscaping Impacted:  YES  NO

Underdrain Needed:  YES  NO

Underdrains Can Discharge:  YES  NO

Soils are Suitable:  YES  NO

Ground Water Table Level Suitable:  YES  NO

Estimate IMP / BMP drainage area included on site: 0.51 ac 100%

**Retrofit of Existing SWM BMP**

SDI ID: \_\_\_\_\_

Add Forebay:  YES  NO

Modify Outlet Structure:  YES  NO

Add Aquatic Bench:  YES  NO

Grade Bottom of Facility:  YES  NO

Plant Native Vegetation:  YES  NO

Provide Additional Storage Volume:  YES  NO

Excavation / Raise the Embankment:  YES  NO



**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**



863



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## UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS) FORM 3 -- Opportunities and Constraints of Potential Management Practice

New LID IMP  SWM BMP Retrofit  New SWM BMP  Type (Sheets 4 & 5): 38

State Plane Coordinates of IMP / BMP Centroid: X: \_\_\_\_\_ Y: \_\_\_\_\_

Sketch Location of Footprint (with Approximate Dimensions) and Drainage Boundary on Site Map

Identify all Impairments Addressed by Recommendation (Sheet 1): 1, 2, 3, 4, 7, 16

Treatment Area Ownership:  Transportation ROW  Utility ROW  County  Other Government  Private  
 Other \_\_\_\_\_

Infrastructure / Structures / Buildings Impacted:  YES  NO

Limited Impact to Adjacent Properties:  YES  NO

Area Accessible for Construction:  YES  NO

Area Accessible for Maintenance:  YES  NO

Limited Permitting Issues:  YES  NO

Jurisdictional Wetlands Impacted:  YES  NO

Forest Retention Area Impacted:  YES  NO

Conservation Easement Impacted:  YES  NO

Utilities Present:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Utilities Impacted:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Impacted Utilities:  Above Gound  Underground

Critical Area Impacted:  YES  NO

Mature / Specimen Trees Impacted:  YES  NO

Existing Landscaping Impacted:  YES  NO

Underdrain Needed:  YES  NO

Underdrains Can Discharge:  YES  NO

Soils are Suitable:  YES  NO

Ground Water Table Level Suitable:  YES  NO

Estimate IMP / BMP drainage area included on site: 0.45 ac 95%

### Retrofit of Existing SWM BMP

SDI ID: \_\_\_\_\_

Add Forebay:  YES  NO

Modify Outlet Structure:  YES  NO

Add Aquatic Bench:  YES  NO

Grade Bottom of Facility:  YES  NO

Plant Native Vegetation:  YES  NO

Provide Additional Storage Volume:  YES  NO

Excavation / Raise the Embankment:  YES  NO

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice (concluded)**

<b>IMP / BMP SUMMARY</b>			
WQ <sub>v</sub> (provided):	<u>0.030</u>	Re <sub>v</sub> (provided):	<u>0.002</u>
Area Treated (ac):	<u>0.48</u>	Impervious Area Treated (ac):	<u>0.37</u>

**Photographs**

No. <u>885</u>	Description: <u>looking east</u>
No. <u>886</u>	Description: <u>looking west</u>
No. _____	Description: _____

**Comments** IMP treats 96% of the drainage area  
IMP size = 2,590 sq ft  
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**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**



885



886

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**

New LID IMP  SWM BMP Retrofit  New SWM BMP  Type (Sheets 4 & 5): 41

State Plane Coordinates of IMP / BMP Centroid: X: \_\_\_\_\_ Y: \_\_\_\_\_

Sketch Location of Footprint (with Approximate Dimensions) and Drainage Boundary on Site Map

Identify all Impairments Addressed by Recommendation (Sheet 1): 4

Treatment Area Ownership:  Transportation ROW  Utility ROW  County  Other Government  Private  
 Other \_\_\_\_\_

Infrastructure / Structures / Buildings Impacted:  YES  NO

Limited Impact to Adjacent Properties:  YES  NO

Area Accessible for Construction:  YES  NO

Area Accessible for Maintenance:  YES  NO

Limited Permitting Issues:  YES  NO

Jurisdictional Wetlands Impacted:  YES  NO

Forest Retention Area Impacted:  YES  NO

Conservation Easement Impacted:  YES  NO

Utilities Present:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Utilities Impacted:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Impacted Utilities:  Above Gound  Underground

Critical Area Impacted:  YES  NO

Mature / Specimen Trees Impacted:  YES  NO

Existing Landscaping Impacted:  YES  NO

Underdrain Needed:  YES  NO

Underdrains Can Discharge:  YES  NO

Soils are Suitable:  YES  NO

Ground Water Table Level Suitable:  YES  NO

Estimate IMP / BMP drainage area included on site: 0.48 ac 100%

**Retrofit of Existing SWM BMP**

SDI ID: \_\_\_\_\_

Add Forebay:  YES  NO

Modify Outlet Structure:  YES  NO

Add Aquatic Bench:  YES  NO

Grade Bottom of Facility:  YES  NO

Plant Native Vegetation:  YES  NO

Provide Additional Storage Volume:  YES  NO

Excavation / Raise the Embankment:  YES  NO

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice (concluded)**

<b>IMP / BMP SUMMARY</b>			
WQ <sub>v</sub> (provided):	<u>0.028</u>	Re <sub>v</sub> (provided):	<u>0.000</u>
Area Treated (ac):	<u>0.48</u>	Impervious Area Treated (ac):	<u>0.35</u>

**Photographs**

No. <u>883</u>	Description: <u>looking east</u>
No. _____	Description: _____

**Comments**

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**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**



883

## UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS) FORM 3 -- Opportunities and Constraints of Potential Management Practice

New LID IMP  SWM BMP Retrofit  New SWM BMP  Type (Sheets 4 & 5): 41

State Plane Coordinates of IMP / BMP Centroid: X: \_\_\_\_\_ Y: \_\_\_\_\_

Sketch Location of Footprint (with Approximate Dimensions) and Drainage Boundary on Site Map

Identify all Impairments Addressed by Recommendation (Sheet 1): 4

Treatment Area Ownership:  Transportation ROW  Utility ROW  County  Other Government  Private  
 Other \_\_\_\_\_

Infrastructure / Structures / Buildings Impacted:  YES  NO

Limited Impact to Adjacent Properties:  YES  NO

Area Accessible for Construction:  YES  NO

Area Accessible for Maintenance:  YES  NO

Limited Permitting Issues:  YES  NO

Jurisdictional Wetlands Impacted:  YES  NO

Forest Retention Area Impacted:  YES  NO

Conservation Easement Impacted:  YES  NO

Utilities Present:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Utilities Impacted:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Impacted Utilities:  Above Gound  Underground

Critical Area Impacted:  YES  NO

Mature / Specimen Trees Impacted:  YES  NO

Existing Landscaping Impacted:  YES  NO

Underdrain Needed:  YES  NO

Underdrains Can Discharge:  YES  NO

Soils are Suitable:  YES  NO

Ground Water Table Level Suitable:  YES  NO

Estimate IMP / BMP drainage area included on site: 0.46 ac 100%

### Retrofit of Existing SWM BMP

SDI ID: \_\_\_\_\_

Add Forebay:  YES  NO

Modify Outlet Structure:  YES  NO

Add Aquatic Bench:  YES  NO

Grade Bottom of Facility:  YES  NO

Plant Native Vegetation:  YES  NO

Provide Additional Storage Volume:  YES  NO

Excavation / Raise the Embankment:  YES  NO

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice (concluded)**

<b>IMP / BMP SUMMARY</b>			
WQ <sub>v</sub> (provided):	<u>0.028</u>	Re <sub>v</sub> (provided):	<u>0.000</u>
Area Treated (ac):	<u>0.46</u>	Impervious Area Treated (ac):	<u>0.35</u>

**Photographs**

No. <u>884</u>	Description: <u>looking west</u>
No. _____	Description: _____

**Comments**

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**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**



884

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**

New LID IMP  SWM BMP Retrofit  New SWM BMP  Type (Sheets 4 & 5): 41

State Plane Coordinates of IMP / BMP Centroid: X: \_\_\_\_\_ Y: \_\_\_\_\_

Sketch Location of Footprint (with Approximate Dimensions) and Drainage Boundary on Site Map

Identify all Impairments Addressed by Recommendation (Sheet 1): 4

Treatment Area Ownership:  Transportation ROW  Utility ROW  County  Other Government  Private  
 Other \_\_\_\_\_

Infrastructure / Structures / Buildings Impacted:  YES  NO

Limited Impact to Adjacent Properties:  YES  NO

Area Accessible for Construction:  YES  NO

Area Accessible for Maintenance:  YES  NO

Limited Permitting Issues:  YES  NO

Jurisdictional Wetlands Impacted:  YES  NO

Forest Retention Area Impacted:  YES  NO

Conservation Easement Impacted:  YES  NO

Utilities Present:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Utilities Impacted:  None  Natural Gas  Electric  Telephone  Cable  Water  Sewer  Other \_\_\_\_\_

Impacted Utilities:  Above Gound  Underground

Critical Area Impacted:  YES  NO

Mature / Specimen Trees Impacted:  YES  NO

Existing Landscaping Impacted:  YES  NO

Underdrain Needed:  YES  NO

Underdrains Can Discharge:  YES  NO

Soils are Suitable:  YES  NO

Ground Water Table Level Suitable:  YES  NO

Estimate IMP / BMP drainage area included on site: 0.51 ac 100%

**Retrofit of Existing SWM BMP**

SDI ID: \_\_\_\_\_

Add Forebay:  YES  NO

Modify Outlet Structure:  YES  NO

Add Aquatic Bench:  YES  NO

Grade Bottom of Facility:  YES  NO

Plant Native Vegetation:  YES  NO

Provide Additional Storage Volume:  YES  NO

Excavation / Raise the Embankment:  YES  NO

**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice (concluded)**

<b>IMP / BMP SUMMARY</b>			
WQ <sub>v</sub> (provided):	<u>0.031</u>	Re <sub>v</sub> (provided):	<u>0.004</u>
Area Treated (ac):	<u>0.51</u>	Impervious Area Treated (ac):	<u>0.38</u>

**Photographs**

No. <u>867</u>	Description: <u>looking east</u>
No. _____	Description: _____

**Comments**

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**UPPER PATUXENT RIVER WATERSHED RESTORATION ACTION STRATEGY (WRAS)  
FORM 3 -- Opportunities and Constraints of Potential Management Practice**



867